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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,289	11/24/2003	Chenhsing Liu	92-039	4120

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PAI PATENT & TRADEMARK LAW FIRM  
1001 FOURTH AVENUE, SUITE 3200  
SEATTLE, WA 98154

EXAMINER

REIFSNYDER, DAVID A

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/720,289	Applicant(s) LIU, CHENHSING	
	Examiner David A. Reifsnnyder	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 1, drawn to a method for separating flocks from a solution, classified in class 494, subclass 37.
- II. Claims 2 and 3, drawn to flock separator adapted to separate flocks from a solution, classified in class 494, subclass 60.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the instantly claimed process as claimed can be practiced by another materially different apparatus such as one which does not include the instantly claimed first and second annular collectors.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the search required for the inventions is different, restriction for examination purposes as indicated is proper.

During a telephone conversation with David Pai on December 9, 2004 a provisional election was made without traverse to prosecute the invention of Group I,

Art Unit: 1723

claim 1. Affirmation of this election must be made by applicant in replying to this Office action. Claims 2 and 3 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1; the recitation in the preamble of "A flock separation method for separating flocks from a solution" is vague and indefinite as to whether the applicant intends to claim flock separating or not. One way to correct this problem would be to rewrite the preamble of claim 1 as **---A method of separating flocks from a solution, comprising the steps of:---** Furthermore, the recitations of "the border area" (twice), "the central axis of said container" (i.e. a container has two central axes), "the periphery of said container" (thrice), "the solution", and "the central area" all lack antecedent basis. In addition, the recitation of "accumulated flocks" is vague and indefinite as to what type of flock is an "accumulated flock". (i.e. is an accumulated flock a "dense flock" or a "light flock"?) Lastly, the recitation of an "excess amount of deposited flocks" is vague and indefinite as to what is meant by an "excess amount of deposited flocks"

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Storruste et al. in view of Van Arsdell.

**Storruste et al. discloses** a centrifugal separation method for separating solids (i.e. flocks) from a liquid (i.e. a solution), comprising the steps of: preparing a container (10) and then guiding a flock-containing solution through the inlet portion (14) of a pipe located on a central axis of said container (10) into the inside of said container (10); rotating said container (10) to produce a centrifugal force; thereby causing flocks to separate from the flock-containing solution and move to the periphery of the inside of said container (10), the centrifugal force also causing the flock-free solution to move to the central axis of the container (10) and into an outlet portion (26) of the pipe located on the central axis of said container (10); and guiding the flocks from the periphery of

Art Unit: 1723

the inside of said container (10) through a gap (42) to the outside of said container (10), and the flock-free solution from the outlet portion (26) of the pipe located on the central axis of the container (10) to the outside of said container (10). **Storruste et al, fails to disclose** that his solution contains light and dense flocks, wherein the light flocks are deposited on a bottom side of the inside said container, thereby forming a sedimentary deposit layer of light flocks; and allowing said sedimentary deposit layer of light flocks to the catch dense flocks from the solution moving toward the central axis of said container, while some of the deposited light flocks floats from said sedimentary deposit layer toward the periphery of said container. **Van Arsdell discloses** a centrifugal separation method for separating solids (i.e. flocks) into light and dense solids (i.e. flocks), comprising the steps of: preparing a container (10) and then guiding the flocks through an inlet pipe (24) into the inside of said container (10); rotating said container (10) to produce a centrifugal force; thereby causing the flocks to separate into light flocks and dense flocks; wherein the light flocks are deposited on a bottom side of the inside said container, thereby forming a sedimentary deposit layer of light flocks; and allowing said sedimentary deposit layer of light flocks to the catch dense flocks moving toward the central axis of said container, while some of the deposited light flocks floats from said sedimentary deposit layer toward the periphery of said container. ***It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention that the flocks of Storruste et al. separate into light flocks and dense flocks as taught by Van Arsdell, since Storruste et al. and Van Arsdell both disclose centrifugal separation methods and devices.***

Art Unit: 1723

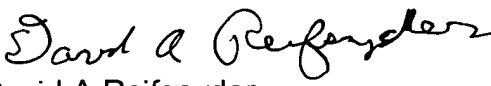
**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Minegishi who disclose a method of centrifugally separating flocks from water.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Reifsnyder whose telephone number is (571) 272-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David A Reifsnyder  
Primary Examiner  
Art Unit 1723

DAR